

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A dual camera module comprising:
a substrate having circuitry thereon for receiving image data;
a first two-image module for capturing first image data, and including a first output for transmitting the first image data to the circuitry on the substrate;~~modules attached to~~
a second image module for capturing second image data, and including a second output for transmitting the second image data to the circuitry on the substrate; and
a flex interconnect having a common data line that is shared by the first and second image modules, the common data line being configured to electrically connect the first and second outputs to the circuitry on the substrate,
wherein portions of the first and second image data are selectively blocked at each respective image module to synchronize the first and second image data received by the circuitry on the substrate.
2. (Currently Amended) A dual camera module recited in claim 1, further comprising: wherein sharing control and data lines, further data lines and at least one component on the flex interconnect that are shared by the first and second image modules.
3. (Currently Amended) The dual camera module recited in claim 1, wherein each of the image modules comprises a lens and an imaging sensor.
4. (Currently Amended) The dual camera module recited in claim 1, wherein each of the image modules comprises a lens and a combination sensor-imageimaging sensor and image processor.
5. (Currently Amended) The dual camera module recited in claim 1, wherein the first image module of the two image modules faces a first direction and the second image module of the two image modules faces a second direction.
6. (Currently Amended) The dual camera module recited in claim 1, wherein said each of the image modules are-is uniquely addressable.
7. (Currently Amended) The dual camera module recited in claim 1, wherein said both of the first and second image modules respond to a common or global address.
8. (Currently Amended) The dual camera module recited in claim 1, wherein said flex interconnect includes an Inter-IC (I2C) bus.

9. (Currently Amended) The dual camera module recited in claim 1, wherein said flex interconnect includes a Serial Peripheral Interface (SPI).

10. (Currently Amended) The dual camera module recited in claim 1, wherein each of the image modules is programmed to respond to a unique Inter-IC (I2C) address.

11. (Currently Amended) The dual camera module recited in claim 1, wherein each of the image modules is programmed to respond to a common address.

12. (Currently Amended) The dual camera module recited in claim 1, wherein each of the first and second image modules ~~is~~ are each configured to tri-state its ~~an~~ output signals thereof.

13. (Currently Amended) The dual camera module recited in claim 1, wherein ~~at~~ the first image module captures images at a first resolution and ~~at~~ the second image module captures images at a second resolution.

14. (Currently Amended) The dual camera module recited in claim 1, wherein ~~at~~ the first image module captures images ~~at~~ having a first orientation and a second image module captures images ~~at~~ having a second orientation.

15. (Currently Amended) The dual camera module recited in claim 1, wherein ~~at~~ the first image module captures images ~~at~~ of a first color range and ~~at~~ the second image module captures images ~~at~~ of a second color range.

16. (Currently Amended) The dual camera module recited in claim 1, wherein ~~at~~ the first image module ~~captures images~~ ~~at~~ has a first focal length and a second image module ~~captures images~~ ~~at~~ has a second focal length.

17. (Currently Amended) An electronic apparatus comprising:
~~a substrate having circuitry thereon for receiving image data; and~~
~~a dual camera module connected to said substrate, said dual camera module adapted to capture images, the dual camera module comprising:~~
~~including~~

~~a first image module adapted to capture a first image images in a first direction, and~~
~~including a first output for transmitting the first captured image to the circuitry on the~~
~~substrate;~~ ~~and~~

~~a second image module adapted to capture second image images in a second direction,~~
~~and including a second output for transmitting the second captured image to the circuitry on~~
~~the substrate, and~~

~~a common set of data lines that are shared by the first and second image modules, the~~
~~common set of data lines being configured to electrically connect the first and second outputs to~~
~~the circuitry on the substrate,~~

wherein portions of the first and second captured images are selectively blocked at each respective image module to synchronize the first and second captured images received by the circuitry on the substrate.

18. (Currently Amended) The electronic apparatus recited in claim 17, wherein each of the image modules comprises a lens and an imaging sensor.

19. (Currently Amended) The dual camera module recited in claim 17, wherein each of the image modules comprises a lens and a combination sensor-image-sensor and image processor.

20. (Currently Amended) The electronic apparatus recited in claim 17, wherein each of the image modules further comprises an imaging filter.

21. (Currently Amended) The electronic apparatus recited in claim 17, wherein the first direction and the second direction are opposite directions relative to each other.

22. (Currently Amended) The electronic apparatus recited in claim 17, wherein said common set of data lines is included in a flex interconnect that includes an Inter-Integrated Circuit (I2C) bus.

23. (Currently Amended) The electronic apparatus recited in claim 17, wherein said common set of data lines is included in a flex interconnect that includes a Serial Peripheral Interface (SPI) bus.

24. (Currently Amended) The electronic apparatus recited in claim 23, wherein each of the image modules is programmed to respond to a unique I2C address.

25. (Currently Amended) The electronic apparatus recited in claim 23, wherein each of the image modules is programmed to respond to a unique slave select signal on the SPI bus.

26. (Currently Amended) The dual camera module recited in claim 17, wherein said both of the image modules respond to a common address.

27. (Currently Amended) The electronic apparatus recited in claim 17, further comprising: a screen whereon for displaying the captured images are displayed.

28. (Currently Amended) The electronic apparatus recited in claim 17, further comprising: a screen coupled to the circuitry on the substrate whereon for simultaneously displaying at the first captured image from the first image module is displayed simultaneously synchronized with at the second captured image from the second image module.

29. (Currently Amended) The electronic apparatus recited in claim 17, wherein said first image module has a first focal length and said second image module has a second focal length.

30. (Currently Amended) The dual camera module recited in claim 17, wherein ~~at the~~ first image module captures images ~~at~~of a first resolution and ~~at the~~ second image module captures images ~~at~~of a second resolution.

31. (Currently Amended) An electronic apparatus, comprising:
a substrate;

a first image module adapted to capture a first image and images mounted on a ~~first side~~ of said substrate;

a second image module adapted to capture a second image and images mounted on a ~~second side of said substrate~~; and

a screen coupled to the substrate and adapted to display the first and second images captured by said first and second image modules and by ~~said second image module~~
wherein portions of the first and second images are selectively blocked at each
respective image module to synchronize the first and second images displayed on the screen.

32. (Currently Amended) The electronic apparatus recited in claim 31, further comprising:

a screen for displaying wherein the first and second captured images are displayed.

33. (Currently Amended) The electronic apparatus recited in claim 31, wherein each of the image modules comprises a lens and an imaging sensor.

34. (Currently Amended) The electronic apparatus recited in claim 31, wherein each of the image modules is a combination sensor and image processor.

35. (Currently Amended) The electronic apparatus recited in claim 31, wherein said first image module faces a first direction and said second image module faces a second direction.

36. (Currently Amended) A method of operating an electronic apparatus having first and second image modules, said method comprising:

capturing a scene using by ~~the~~ first image module while the second image module is not operating;

for previewing the scene on a display;

turning on the second image module after the capturing of the scene by the first image module; and

capturing, after the turning on of the second image modulepreviewing, the scene at a higher resolution than the previewed scene using ~~the~~ second image module based on the previewed scene.

37. (Canceled)

38. (Currently Amended) A method of operating an electronic apparatus, the electronic apparatus including first and second image modules having first and second outputs, respectively, said method comprising

capturing afirst and second scenes, as first and second data streams, using atthe first image module and atthe second image module, respectively;

transmitting the first image data stream to circuitry on a substrate via at least one common data line and the first output of the first image module;

transmitting the second image data stream to the circuitry on the substrate via the at least one common data line and the second output of the second image module; and

synchronizing the first and second image data streams received by the circuitry on the substrate by selectively blocking reception of portions of the first and second image data streams transmitted by the first and second outputs, respectively via at least one common data line to the circuitry on the substrate, the two image modules operating simultaneously and synchronously to generategenerating a composite image data stream.

39. (Currently Amended) The method recited in claim 38 wherein the composite image data stream at least one common data line is included in -is generated on a shared tri-state bus and the synchronizing of the first and second image data stream includes selectively tri-stating the first and second outputs using the shared tri-state bus to generate the composite image data stream.

40. (New) The method recited in claim 38, wherein the synchronizing of the first and second image data streams is based on a portion of the first scene defining a window-of-disinterest.

41. (New) The dual camera module recited in claim 1, wherein:

the first and second image modules have a shared, common housing and include first and second imaging arrays, respectively; and

the flex interconnect attaches the shared, common housing to the substrate and electrically connects the first and second imaging arrays to the circuitry of the substrate.